

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

February 6th, 1901.—J. J. H. Teall, Esq., M.A., F.R.S.,
President, in the Chair.

The following communication was read:—

‘On the Structure and Affinities of the Rhætic Plant *Naiadita*.’
By Miss Igera B. J. Sollas, B.Sc., Newnham College, Cambridge.

This plant, the remains of which are found in Gloucestershire, was considered to be a monocotyledon by Buckman, but a moss by Starkie Gardner. Material supplied by Mr. Seward and Mr. Wickes has given the Authoress ground for the belief that *Naiadita* is an aquatic lycopod, and that it is the earliest recorded example of a fossil member of the Lycopodiaceæ, resembling in proportions and outward morphology the existing representatives of the group. The specimens described show stems, leaves, and sporangia which appear to be borne laterally on the stem and to be embraced by the bases of the leaves. Stomata do not appear to occur, and the association of leaves of different types leads to the conclusion that the three described species are in reality but one. The stems consist mainly of long, thin-walled tubes covered with an epidermis of long rectangular cells; the leaves, in vertical section, show only a single layer of complete cells. The absence of stomata and cortical tissue may be explained, if the plant was submerged when living; but it is possible that the lower tissues of the leaf are lost, together with any stomata which may have been present.

May 22nd, 1901.—J. J. H. Teall, Esq., M.A., F.R.S.,
President, in the Chair.

Mr. GEORGE ABBOTT, in exhibiting some specimens of Cellular Limestone from the Permian beds at Fulwell, Sunderland, which he proposed to present to the British Museum (Natural History), remarked that their interest depended upon the assumption that they were entirely inorganic. Although showing a remarkable resemblance to corals, yet no zoologist or geologist had yet claimed them as organic. If this surmise were correct, the carbonate-of-lime-molecules—probably when amorphous—must have had some inherent molecular directive force which produced the numerous distinct patterns in their structure. These fall into four distinct classes:—honeycomb (two kinds), coralloid, and pseudo-organic, the last-named being remarkable for having a constant discoidal shape, and therefore those of this class must have had their external form also controlled by the hypothecated force. Each class appears to have passed through four stages of

'growth' and to have undergone some marvellous rearrangements of the particles while in the solid condition. So far as he knew, no one had previously attempted to classify the different patterns, nor had anyone, except Mr. Wickham King, in his work on 'Permian Fossils,' offered any theory as to the formation of this cellular structure in the Magnesian Limestone.

The following communication was read:—

'On the Skull of a Chiru-like Antelope from the Ossiferous Deposits of Hundes (Tibet).' By Richard Lydekker, Esq.

Twenty years ago the Author proposed the provisional name of *Pantholops hundesiensis* for an extinct species of antelope typified by an imperfect skull figured in Royle's 'Botany etc. of the Himalaya Mountains,' pl. iii, fig. 1. The specimen is in the Museum of the Geological Society, and an examination has confirmed the original determination. The skull, although of rather smaller dimensions, comes very close to that of the existing chiru (*Pantholops Hodgsoni*) of Tibet in general form of brain-case, in the strong ridges marking the upper limits of the temporal fossæ, and in the contour of the occipital surface. The horn-cores have the same highly elliptical cross-section, and the same general setting-on and upright direction. The fossil apparently came from the horizontal deposits of Hundes, and its age is probably not greater than Upper Pliocene.

MISCELLANEOUS.

On Apus and Branchipus from Armenia. By H. O. CAVALIER.

MR. FELIX OSWALD recently collected some specimens of *Apus cancriformis* and *Branchipus stagnalis* in some pools on the Bingöl Dagh, in Armenia, at a height of 10,000 feet; they are now in the British Museum, where, through the kindness of Professor F. Jeffrey Bell, I have had an opportunity of examining them. It is interesting that the proportion of males is unusually large: of *Apus* there is one male and one female, of *Branchipus* two males and six females.

As Crustacea at such heights are rarely discovered, I think it worthy of record that these are practically identical with the common European species, though this is only in accordance with the results of Grube* on *Apus* from Lake Baikal and of Gaerstaecker † on the Siberian *Branchipus*; but there are some slight differences in the appendages. When sufficient material has been collected a table of the variations of Crustacea at different altitudes may be of considerable interest.

* Jahres-Bericht schl. Gesell. 1872, p. 53.

† Bronn, 'Crustacea,' p. 1062.